

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A secondary battery comprising:

first and second cells, each cell comprising:

a generally cylindrical core;

~~a first cell comprising a flat sheet shaped first~~ generally cylindrical
electrode of one a first polarity and ~~a flat sheet shaped second electrode of another~~
polarity ~~layered on top of one another with a separator disposed therebetween~~ disposed
concentrically around said core and spaced a first distance from said core;

~~a second cell aligned in the same direction as, and adjacent to, the first~~
cell, ~~the second cell comprising a flat sheet shaped first~~ generally cylindrical electrode
of one the first polarity and ~~a flat sheet shaped second electrode of another polarity~~
~~layered on top of one another with a separator disposed therebetween~~ disposed
concentrically around said core and spaced a second distance from said core;

~~wherein an edge portion of the first electrode in the first cell has a different~~
polarity than ~~an edge portion of the second electrode in the second cell, and is~~
~~overlapped and joined with the edge portion of the second electrode in the second cell~~

a third generally cylindrical electrode of a second polarity opposite said
first polarity disposed concentrically around said core and spaced a third distance from
said core;

a fourth generally cylindrical electrode of the second polarity disposed concentrically around said third electrode and spaced a fourth distance from said core;
and

a plurality of generally cylindrical separators disposed between said respective electrodes, separating said first, second, third, and fourth electrodes, respectively, from one another; and

wherein at least one electrode of the first polarity in the first cell is in electrical contact with at least one an electrode of the second polarity in the second cell.

2. (Currently Amended) The secondary battery according to claim 1, wherein the ~~shape of the first electrode~~ electrodes and the ~~shape of the second electrode~~ electrodes are the same, and the ~~first electrode and the second electrode are layered~~ offset from one another in a direction in which the first cell and second cell are ~~alinged~~ aligned.

3. (Currently Amended) The secondary battery according to claim 1, wherein the ~~layered~~ electrodes are wound.

4. (Cancelled).

5. (Currently Amended) The secondary battery according to claim ~~[[4]]~~ 1, wherein the ~~shaft-shaped member~~ core is hollow.

6. (Original) The secondary battery according to claim 1, wherein the edge portion of the first electrode in the first cell and the edge portion of the second electrode in the second cell are joined by crimping.

7. (Original) The secondary battery according to claim 1, wherein the secondary battery further comprises a ring member, and the edge portion of the first electrode in the first cell and the edge portion of the second electrode in the second cell are joined by pressure from the ring member.

8. (Original) The secondary battery according to claim 1, wherein the edge portion of the first electrode in the first cell and the edge portion of the second electrode in the second cell are joined by welding.

9. (Original) The secondary battery according to claim 1, wherein the secondary battery further comprises a case which encloses the first and second cells, and the edge portion of the first electrode in the first cell and the edge portion of the second electrode in the second cell are joined by being pressed together by pressure applied to the case from the outside.

10. (Withdrawn) A manufacturing system for manufacturing a secondary battery, comprising:

a forming apparatus that forms a first cell comprising a flat sheet-shaped first electrode of one polarity and a flat sheet-shaped second electrode of another polarity layered on top of one another with a separator disposed therebetween; and

a moving apparatus that moves the first cell with respect to the forming apparatus so that the forming apparatus can form a second cell comprising a flat sheet-shaped first electrode of one polarity and a flat sheet-shaped second electrode of another polarity layered on top of one another with a separator disposed therebetween, such that an edge portion of the second electrode in the second cell, which has a different polarity than an edge portion of the first electrode in the first cell, is overlapped with the edge portion of the first electrode in the first cell, and the secondary battery has a shape in which the first cell and the second cell are aligned in one direction.

11. (Withdrawn) The manufacturing system according to claim 10, wherein the shape of the first electrode and the shape of the second electrode are the same, and the forming apparatus forms the first cell and the second cell by layering the first electrode and the second electrode on top of one another and offset from one another in the one direction.

12. (Withdrawn) The manufacturing system according to claim 10, wherein the forming apparatus forms the first cell and the second cell by winding the layered electrodes.

13. (Withdrawn) The manufacturing system according to claim 12, wherein the secondary battery is a battery which includes a shaft-shaped member and the forming apparatus forms the first cell and the second cell by winding the layered electrodes around the shaft-shaped member.

14. (Withdrawn) The manufacturing system according to claim 10, wherein the manufacturing system further comprises a joining apparatus for joining the edge portion of the first electrode in the first cell and the edge portion of the second electrode in the second cell at a portion where those two edge portions overlap.

15. (Withdrawn) The manufacturing system according to claim 14, wherein the secondary battery is a battery in which the first and second cells is housed in a case, and the joining apparatus joins the edge portion of the first electrode in the first cell and the edge portion of the second electrode in the second cell at a portion where those two edge portions overlap by pressing on the case from the outside.

16. (Withdrawn) A manufacturing method of a secondary battery, comprising:
a first forming step for forming a first cell comprising a flat sheet-shaped first electrode of one polarity and a flat sheet-shaped second electrode of another polarity layered on top of one another with a separator disposed therebetween; and
a second forming step for forming a second cell comprising a flat sheet-shaped first electrode of one polarity and a flat sheet-shaped second electrode of another polarity layered on top of one another with a separator disposed therebetween,

such that an edge portion of the second electrode in the second cell, which has a different polarity than an edge portion of the first electrode in the first cell, is overlapped with the edge portion of the first electrode in the first cell, and the secondary battery has a shape in which the first cell and the second cell are aligned in one direction.

17. (Withdrawn) The manufacturing method according to claim 16, wherein the first forming step forms a plurality of the first cells at predetermined intervals in the one direction.

18. (Withdrawn) The manufacturing method according to claim 16, wherein the shape of the first electrode and the shape of the second electrode are the same, and in the first forming step and the second forming step, the first cell and the second cell are formed by layering the first electrode and the second electrode on top of one another and offset from one another in the one direction.

19. (Withdrawn) The manufacturing method according to claim 16, wherein in the first forming step and the second forming step, the first cell and the second cell are formed by winding the layered electrodes.

20. (Withdrawn) The manufacturing method according to claim 19, wherein the secondary battery is a battery which includes a shaft-shaped member, and the first cell and the second cell are formed by winding the layered electrodes around the shaft-shaped member.

21. (Withdrawn) The manufacturing method according to claim 16, further comprising a joining step for joining the edge portion of the first electrode in the first cell and the edge portion of the second electrode in the second cell at a portion where those two edge portions overlap.

22. (Withdrawn) The manufacturing method according to claim 21, wherein the secondary battery is a battery in which the first and second cells is housed in a case, and in the joining step, the edge portion of the first electrode in the first cell and the edge portion of the second electrode in the second cell at a portion where those two edge portions overlap are joined by pressing on the case from the outside.

23-24. (Cancelled).

25. (New) The secondary battery according to claim 1, wherein the core is configured to route a cooling fluid therethrough.

26. (New) The secondary battery according to claim 1, further comprising a generally cylindrical outer casing and an insulation sheet.

27. (New) The secondary battery according to claim 1, wherein said third distance is greater than said first distance.

28. (New) The secondary battery according to claim 1, wherein said fourth distance is greater than said first distance.

29. (New) A secondary battery comprising:
first and second adjacent cells, each cell comprising:
a generally cylindrical core;
a first generally cylindrical electrode of a first polarity disposed concentrically around and spaced a first distance away from said core; and
a second generally cylindrical electrode of a second polarity opposite said first polarity disposed concentrically around said core and spaced a second distance away from said core;
wherein a first electrode in one cell is in electrical contact with a second electrode in the adjacent cell; and
wherein said second distance is different from said first distance.

30. (New) The secondary battery of claim 29, further comprising separators between said first and second electrodes.

31. (New) The secondary battery of claim 29, wherein said second distance is greater than said first distance.

32. (New) The secondary battery of claim 29, wherein said second distance is less than said first distance.

33. (New) The secondary battery of claim 29, further comprising a third electrode of one of the first and second polarities provided concentrically around said core, and spaced a third distance away from said core.

34. (New) The secondary battery of claim 33, further comprising a fourth electrode of one of the first and second polarities, opposite the plurality of the third electrode, provided concentrically around said core, and spaced a fourth distance away from said core.